

Application Serial No. 09/901,014  
Amendment dated June 9, 2005  
Reply to Office action of March 9, 2005

#### REMARKS

Claims 70 and 72 through 79 are pending in this application. Claim 70 is amended herein. Support for the amendments to the claims may be found in the claims as filed originally as well as in Fig. 2 and at page 15, lines 23 through 31, continuing at page 16 of the specification. This amendment is believed to place the application in condition for allowance, and entry is requested respectfully. Further reconsideration of this application in view of the foregoing amendment and the following remarks is also respectfully requested.

#### Response to Amendment:

The Applicant appreciates the entry of the amendment filed October 22, 2004.

#### Claim Rejections - 35 U.S.C. § 102:

Claims 70 and 72 through 76 were rejected under 35 U.S.C. § 102(b) as anticipated by Stringer et al., US 5,105,392. The rejection is traversed.

Claim 70 recites:

"a first sensor measuring a parameter of said ultrasound," and "a central processing unit responsive to a first signal from said first sensor and a second signal from said second sensor to regulate said ultrasound generator and adjust a frequency or an intensity of said ultrasound in response to said first signal from said first sensor and said second signal from said second sensor."

Stringer neither teaches, discloses, nor suggests a first sensor measuring a parameter of ultrasound, or a central processing unit adjusting a frequency or intensity of ultrasound in response to a first signal from the first sensor, as recited in claim 70. The ultrasonic sensors to which the Office action refers, at column 3, lines 55-65, sense no parameter of ultrasound. Ultrasonic transducers or sensors 12, 14, and 16, rather, measure the length, width, and height of an object 26 or 28, as described at column 4, lines 39, 40, 60, and 61, and column 5, lines 8 and 9.

In addition, the photocell sensors do not measure a dimension of an object, contrary to the Office action's assertion. Photocell 22, rather, *triggers* a measurement of a dimension of an object, as described at column 6, lines 29 and 30. In other words photocell 22 turns the

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transducer on, in a manner akin to an electric eye turning a floodlight on when someone pulls into your driveway, when the object crosses its beam. Ultrasonic transducers or sensors 12, 14, and 16 measure the dimensions of the object, as discussed above, not photocell 22.

Furthermore, although measuring an object length by timing the object as it passes photocell 22 is described at column 6, lines 44 and 45, the length of the object is proportional to time passing on a clock, rather than a second signal from a sensor that senses a parameter of the object.

Finally, Stringer mentions no frequency or intensity adjustment at all. Adjusting a frequency or an intensity of the ultrasound Stringer uses to measure the length, width, or height of object 26 or 28 would be pointless, since it would only introduce another variable into the measurement. Changing the frequency of ultrasound in Stringer, for example, would be like having a ruler or measuring tape in which the distances between the marks varied while a measurement was taking place.

Stringer, in fact, emphasizes the importance of compensating for the effect of variations of, e.g. temperature and humidity on the travel time of ultrasonic waves at column 7, lines 26 through 31. Stinger is thus trying to maintain the characteristics of the ultrasonic waves as constant as possible, rather than adjusting a frequency or intensity of ultrasound.

Finally, the Office action appears to be ignoring elements recited in the "wherein" clause at the end of claim 70 in order to assert that claim 70 is anticipated by Stringer. "Wherein" clauses are limiting, and thus the elements following the "wherein" clause ought to be given patentable weight,

"Furthermore, the Board did not err in giving limiting effect to the "wherein" clauses because they relate back to and clarify what is required by the count." Griffin v. Bertina, 285 F.3d 1029, 62 U.S.P.Q.2d 1431, 1434 (Fed. Cir. 2002).

Still in order to further the prosecution of the case, claim 70 was amended to delete the word "wherein" and place the elements recited in the "wherein" clause into the body of the claim, as shown on the attached sheets. Claim 70 is submitted to be allowable. Withdrawal of the rejection of claim 70 is earnestly solicited.

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Claims 72 through 76 depend from claim 70 and add further distinguishing elements. Claims 72 through 76 are also submitted to be allowable. Withdrawal of the rejection of claims 72 through 76 is earnestly solicited.

Claims 70, 72, 73, and 75 through 79 were rejected under 35 U.S.C. § 102(b) as anticipated by Delannoy et al., US 5,284,144. The rejection is traversed.

Delannoy shows no first sensor measuring a parameter of said ultrasound, or a central processing unit adjusting a frequency or intensity of said ultrasound in response to a first signal from said first sensor as recited in claim 70, either. Even if the hyperthermia applicator (HT) of Delannoy is a piezoelectric applicator, as described at column 8, lines 26-29, and the piezoelectric applicator produces ultrasound, there is still no measurement of a parameter of the ultrasound produced by the piezoelectric applicator. The only parameter being measured is the amount of radiant energy transmitted by the hyperthermia applicator, as implied by the presence of control over the amount of radiant energy being transmitted, rather than any parameter of the ultrasound.

Furthermore, Delannoy describes no central processing unit adjusting a frequency or intensity of the ultrasound in response to a first signal from a first sensor, as recited in claim 70, at all. The Office action seems to be interpreting a radio frequency coil positioned inside a magnet to provide information which permits control of the amount of radiant energy being transmitted as controlling, and thereby adjusting, a frequency or intensity of the ultrasound. Delannoy doesn't work that way at all, actually. In Delannoy, rather, the amount of radiant *energy* transmitted by the hyperthermia applicator is being controlled, as described at column 4, lines 47-49, rather than a frequency or intensity of the ultrasound.

Nor is the amount of radiant energy transmitted by the hyperthermia applicator being controlled in response to a first signal from a first sensor measuring a parameter of ultrasound, as recited in claim 70. The amount of radiant energy transmitted by the hyperthermia applicator is actually controlled by beam steering with, e.g. an antenna array, as described at column 8, lines 46-50, or by simply tuning a resonant circuit to interfere constructively or destructively with the radio frequency, thereby transmitting or blocking the radiant energy produced by the hyperthermia applicator, as described at column 7, lines 43-45. Claim 70 is submitted to be allowable. Withdrawal of the rejection of claim 70 is earnestly solicited.

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Claims 72, 73, and 75 through 79 depend from claim 70 and add further distinguishing elements. Claims 72, 73, and 75 through 79 are also submitted to be allowable. Withdrawal of the rejection of claims 72, 73, and 75 through 79 is earnestly solicited.

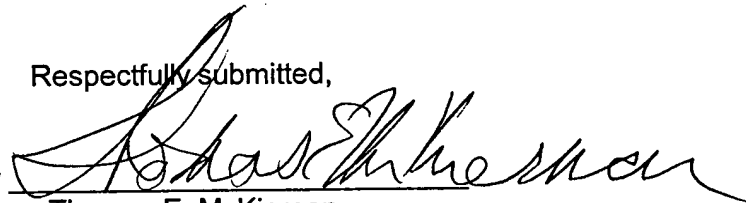
Conclusion:

Accordingly, in view of the reasons given above, it is submitted that all claims 70 and 72 through 79 are allowable over the cited references. Allowance of all claims 70 and 72 through 79 and of this entire application are therefore respectfully requested.

In view of the above amendments and remarks, it is believed that the claims satisfy the requirements of the patent statutes and are patentable over the prior art. Reconsideration of the instant application and early notice of allowance are requested. The Examiner is invited to telephone the undersigned if it is deemed to expedite allowance of the application.

Respectfully submitted,

By



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